

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Withdrawn) A substantially pure polypeptide comprising an amino acid sequence at least 70% identical to SEQ ID NO:2, wherein the polypeptide binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.
2. (Withdrawn) The polypeptide of claim 1, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:2.
3. (Withdrawn) The polypeptide of claim 1, wherein the amino acid sequence is at least 90% identical to SEQ ID NO:2.
4. (Withdrawn) The polypeptide of claim 1, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.
5. (Withdrawn) A substantially pure polypeptide comprising the amino acid sequence of SEQ ID NO:2.
6. (Withdrawn) A substantially pure polypeptide comprising the amino acid sequence of SEQ ID NO:2, with up to 30 conservative amino acid substitutions, wherein the polypeptide binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.

7. (Withdrawn) A substantially pure polypeptide encoded by a nucleic acid that hybridizes under high stringency conditions to a probe the sequence of which consists of SEQ ID NO:1, wherein the polypeptide binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.

8. (Currently amended) An isolated nucleic acid encoding ~~the a~~ polypeptide of ~~claim 4~~ comprising an amino acid sequence at least 70% identical to SEQ ID NO:2, wherein the polypeptide binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.

9. (Currently amended) An isolated nucleic acid encoding ~~the a~~ polypeptide of ~~claim 5~~ comprising the amino acid sequence of SEQ ID NO:2.

10. (Currently amended) An isolated nucleic acid encoding ~~the a~~ polypeptide of ~~claim 6~~ comprising the amino acid sequence of SEQ ID NO:2, with up to 30 conservative amino acid substitutions, wherein the polypeptide binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.

11. (Currently amended) An isolated nucleic acid comprising a strand that hybridizes under stringent conditions to a single stranded probe, the sequence of which consists of SEQ ID NO:1 or the complement of SEQ ID NO:1, wherein the nucleic acid encodes a polypeptide that binds to an androgen receptor and increases the ability of the androgen receptor to transactivate an androgen-responsive gene.

12. (Cancelled)

13. (Currently amended) The nucleic acid of claim ~~12~~ 11, wherein the amino acid sequence of the polypeptide comprises SEQ ID NO:2.

14. (Original) The nucleic acid of claim 11, wherein the strand is at least 15 nucleotides in length.
15. (Original) A vector comprising the nucleic acid of claim 8.
16. (Original) A vector comprising the nucleic acid of claim 9.
17. (Original) A vector comprising the nucleic acid of claim 10.
18. (Original) A vector comprising the nucleic acid of claim 11.
19. (Cancelled)
20. (Original) A cultured host cell comprising the nucleic acid of claim 8.
21. (Original) A cultured host cell comprising the nucleic acid of claim 9.
22. (Original) A cultured host cell comprising the nucleic acid of claim 10.
23. (Original) A cultured host cell comprising the nucleic acid of claim 11.
24. (Cancelled)
25. (Original) A method of producing a polypeptide, the method comprising culturing the cultured host cell of claim 20 in a culture, expressing the polypeptide in the cultured host cell, and isolating the polypeptide from the culture

26. (Withdrawn) A method of screening for a compound that decreases androgen receptor-mediated transactivation, the method comprising

contacting the polypeptide of claim 1 with a protein complex comprising an androgen receptor, in the presence of a candidate compound;

measuring the extent of binding between the polypeptide and the protein complex; and

determining whether the extent of binding is less than the extent of binding between the polypeptide and the protein complex in the absence of the candidate compound, wherein an extent of binding in the presence of the compound less than the extent of binding in the absence of the compound indicates that the candidate compound decreases androgen receptor-mediated transactivation.

27. (Withdrawn) An antibody that binds specifically to the polypeptide of claim 1.

28. (Withdrawn) An antibody that binds specifically to the polypeptide of claim 5.

29. (Withdrawn) A method of determining whether a sample contains cancerous cells, the method comprising:

providing a sample from a human patient, and

detecting androgen receptor complex-associated protein gene expression in the sample,

wherein a level of androgen receptor complex-associated protein gene expression in the sample higher than a level of androgen receptor complex-associated protein gene expression in a normal sample indicates that the sample contains cancerous cells.

30. (Withdrawn) The method of claim 29, wherein the cancerous cells are liver tumor cells.

31. (Withdrawn) A method of treating cancer, the method comprising:
identifying a patient having a cancer that expresses androgen receptor complex-associated protein gene, and
treating the patient with a compound that blocks binding of the androgen receptor complex-associated protein to an androgen receptor or decreases the ability of the androgen receptor to transactivate an androgen-responsive gene.

32. (Withdrawn) The method of claim 31, wherein the cancer is a liver cancer.

33. (Withdrawn) The method of claim 31, wherein the compound is an antibody.

34. (Withdrawn) The method of claim 32, wherein the compound is an antibody.

35. (New) The nucleic acid of claim 8, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:2.

36. (New) The nucleic acid of claim 35, wherein the amino acid sequence is at least 90% identical to SEQ ID NO:2.

37. (New) The nucleic acid of claim 36, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.

38. (New) The vector of claim 15, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:2.

39. (New) The vector of claim 38, wherein the amino acid sequence is at least 90% identical to SEQ ID NO:2.

40. (New) The vector of claim 39, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.

41. (New) The host cell of claim 20, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:2.

42. (New) The host cell of claim 41, wherein the amino acid sequence is at least 90% identical to SEQ ID NO:2.

43. (New) The host cell of claim 42, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.

44. (New) The method of claim 25, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:2.

45. (New) The method of claim 44, wherein the amino acid sequence is at least 90% identical to SEQ ID NO:2.

46. (New) The method of claim 45, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.